



Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

1448A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet	1	of	3
-------	---	----	---

Complete If Known

Application Number	10/789,810
Filing Date	02/27/2004
First Named Inventor	Evgueni Goldberg
Art Unit	2129
Examiner Name	Omar F. Fernandez Rivas
Attorney Docket Number	CA7031042001

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

[illegible]

**Examiner
Signature**

/Omar Fernandez Rivas/

Date Considered

12/20/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 18 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

A2.

PTO/SB/08B(07-05)

Approved for use through 07/31/2008. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet 2 of 3

Complete if Known

Application Number	10789,810
Filing Date	02/27/2004
First Named Inventor	Evgueni Goldberg
Art Unit	2129
Examiner Name	Omar F. Fernandez Rivas
Attorney Docket Number	CA7031042001

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
OFR	2	BAPTISTA, L. et al.; "The Interplay of Randomization and Learning of Real-World Instances of Satisfiability"; Proceedings of the AAAI Workshop on Leveraging Probability and Uncertainty in Computation; July 2000.	
OFR	3	BAYARDO, R. et al.; "Using CSP Look-Back Techniques to Solve Real-World SAT Instances"; Proceedings of the Fourteenth National Conference on Artificial Intelligence and Ninth Innovative Applications of Artificial Intelligence Conference; 1997; pp. 203-208; American Association for Artificial Intelligence Press; USA.	
OFR	4	BEN-SASSON, E. et al.; "Near-Optimal Separation of Tree-like and General Resolution"; Electronic Colloquium on Computational Complexity, Report No. 5; Third Workshop on the Satisfiability Problem - May 2000; January 17, 2000; pp. 14 - 18; ECCC; Israel.	
OFR	5	BIERE, A., et al.; "Symbolic Model Checking Using SAT Procedures Instead of BDDs"; Proceedings of Design Automation Conference - DAC'99; 1999; pp. 317 - 320; ACM; USA.	
OFR	6	BRAYTON, R.K., et al.; "Logic Minimization Algorithms for VLSI Synthesis"; Kluwer Academic Publishers, 1984; USA.	
OFR	7	BURCH, J. R., et al.; "Tight Integration of Combination Verification Methods"; Proceedings of the International Conference on Computer-Aided Design; 1998; pp. 570 - 576; ACM, USA.	
OFR	8	DAVIS, M., et al.; "A Machine Program for Theorem-Proving"; Communications of the ACM; 1962; pp. 394 - 397; USA.	
OFR	9	DUBOIS, O., et al.; "SAT versus UNSAT"; Second DIMACS Series in Discrete Mathematics and Theoretical Computer Science; 1996; pp. 415 - 436; Volume 26; American Mathematical Society.	
OFR	10	FREEMAN, J.W.; "Improvements to Propositional Satisfiability Search Algorithms"; A Dissertation in Computer and Information Science, University of Pennsylvania, 1995; 1995; USA.	
OFR	11	GOLDBERG, E. et al.; "Using SAT for Combinational Equivalence Checking"; Proceedings of the Design Automation and Test in Europe Conference - 2001; 2001; pp. 114 - 121; IEEE; USA.	
OFR	12	GOMES, C. P., et al.; "Boosting Combinatorial Search Through Randomization"; Proceedings of the International Conference on Principles and Practice of Constraint Programming; 1998; pp. 431 - 437; American Association for Artificial Intelligence Press/ The MIT Press; USA.	
OFR	13	GOMES, C. P., et al.; "Heavy-Tailed Distributions in Combinatorial Search"; Principles and Practice of Constraint Programming - CP97; 1997; pp. 121 - 135; Springer.	
OFR	14	LI, C. M.; "A Constraint-Based Approach to Narrow Search Trees for Satisfiability"; Information Processing Letters 71; 1999; pp. 75 - 80; Volume 71; Elsevier Science B.V.; France.	
Examiner Signature	/Omar Fernandez Rivas/		Date Considered 12/20/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PA/52185898.1/2019535-7044552001

A3

PTO/SB/08B(07-05)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number

Substitute for form 1449B/PTO

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

Sheet

3

of

3

Complete If Known

Application Number	10/789,810
Filing Date	02/27/2004
First Named Inventor	Evgueni Goldberg
Art Unit	2129
Examiner Name	Omar F. Fernandez Rivas
Attorney Docket Number	CA7031042001

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
OFR	15	MARQUES-SILVA, J.; "The Impact of Branching Heuristics in Propositional Satisfiability Algorithms"; Proceedings of the 9th Portuguese Conference on Artificial Intelligence (EPIA); September 1999; LNAI; pp. 62 - 74; 1695; Portugal.	
OFR	16	MARQUES-SILVA, J. P. et al.; "GRASP: A New Search Algorithm for Satisfiability"; CSE-TR-292-96; April 10, 1996; pp. 1 - 17; The University of Michigan; USA.	
OFR	17	MARQUES-SILVA, J. P. et al.; "GRASP: A Search Algorithm for Propositional Satisfiability"; IEEE Transactions on Computers; May 1999; pp. 506- 521; Volume 48; No. 5.	
OFR	18	MOSKEWICZ, M. W. et al.; "Chaff: Engineering an Efficient SAT Solver"; Proceedings of the 38th Design Automation Conference -DAC '01; 2001; pp. 530 - 535; ACM; USA.	
OFR	19	NOVIKOV, Y. A.; "Using Restarts When Solving SAT-Instances"; Proceedings of the Fourth International Conference on Computer-Aided Design of Discrete Devices - CAD DD '01; 2001; pp. 166 - 174; Volume 3; National Academy of Sciences of Belarus Institute of Engineering Cybernetics; Republic of Belarus.	
OFR	20	STEPHAN, P., et al.; "Combinational Test Generation Using Satisfiability"; IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems; September 1996; pp. 1167 -1176; Volume 15; Number 9; IEEE; USA.	
OFR	21	VELEV, M. N.; Curriculum Vitae; 2004; http://www.ece.cmu.edu/~mvelev .	
OFR	22	ZHANG, H.; "SATO: An Efficient Propositional Prover"; Proceedings of the 14th International Conference on Automated Deduction - CADE- 14; July 1997; pp. 272 - 275; Springer; Australia.	
OFR	23	SATLIB - Benchmark Problems; 2004; http://www.satlib.org/benchm.html .	
OFR	24	The SAT-Ex site; 2004; http://www.lri.fr/~simon/satex/satex.php3 .	
Examiner Signature	/Omar Fernandez Rivas/		Date Considered
			12/20/2006

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.